

MEIOTIC CROSSOVERS AND ANEUPLOIDIES IN PGT

Meiotic crossovers are important not only in generating diversity but also for ensuring the correct segregation of chromosomes. The relationship between the lack of meiotic crossovers and aneuploidies has been investigated using different approaches. Ariad et al. (1) derived sex-specific recombination landscapes using sequencing data from 18,967 preimplantation genetic testing for aneuploidy. Their methodological approach is able to exploit even relatively low-coverage sequencing ($<0.05\times$). Note that monosomic chromosomes or uniparental isodisomy are phased by default. They found a reduced total length of the female genetic map in trisomies compared with disomies, as well as chromosome-specific alterations in crossover distributions. In addition, their data indicate chromosome-specific propensities for different mechanisms of meiotic error.

1. <https://genome.cshlp.org/content/early/2024/01/17/gr.278168.123.long>